Daily Diary Report by Bid Item

Contract No.: 04-0120F4
Diary #: 330 **Const Calendar Day:** 25 **Date:** 29-Jun-2012 **Friday**
Inspector Name: Wright, Doug **Title:** Transportation Engineer
Inspection Type: No Inspection
Shift Hours: 03:15 AM 02:30 PM **Break:** 00:30 **Over Time:** 02:00
Federal ID:
Location:
Reviewer: Schmitt, Alex **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** **12 PM** **4PM**
Precipitation **Condition**

Working Day ☑ If no, explain:

Diary: Dispute ☐

Swing Out Activities

I spent today doing survey checks on the Cable. TY Lin wanted some data on how much the Cable main-spans have rotated due to the swing-out of the Cable (pulled outward 5.4m at PP104). Matt Bruce, Brian Wolcott, & I laid out the new top-center of the Cable to be able to determine the amount of rotation.

- At 03:15, I arrived at the pier 7 office, & was on the bridge at 03:25.
- From 03:30 until 03:50, we gathered some equipment, & walked up the stair tower to the top of the main-span.
- From 03:50 until 05:15, we laid out the top-center of Cable along the South main-span from PP44 to PP100. We also measured the arc length between the old top-center of Cable & the new top-center of Cable.
- From 05:15 until 06:30, we laid out the top-center of Cable along the North main-span from PP44 to PP102. We did not measure the arc lengths at this time because we were running out of time when the temperature was constant.
- At 06:30, we had to stop the top-center of Cable lay-out since the sun was up & warming the Cable. At this time, Matt left to go back to the office.
- From 06:30 until 08:15, I measured the arc length between the old top-center of Cable & the new top-center of Cable along the North main-span. See below for a list of the measured arc lengths.
- From 08:30 until 10:00, I went back to the pier 7 office to start compiling the data collected, & speak with Warren Collins about some preliminary results of the checks.
- At 10:15, I arrive back on the bridge.
- From 10:15 until 12:00, I did some re-checks on the arc lengths between the old top-center of Cable & the new top-center of Cable along the South main-span. See below for a list of the measured arc lengths.
- At 13:00, I left the bridge.
- From 13:15 until 14:00, I finished compiling the Cable rotation survey data collected today.
- From 14:00 until 14:30, I wrote my diary for the day, & checked email.

Below is a list of the amount & direction of Cable rotation due to Cable swing-out for the North main-span:
Note: 1 degree of rotation is equal to 6.8mm of arc length
PP# - Rotated Arc L - Direction of rotation (clockwise or counter CW, looking East)
44N - 13mm - Counter-CW
46N - 33mm - Counter-CW
48N - Not measured, covered by suspender erection frame
50N - 40mm - Counter-CW
52N - 39mm - Counter-CW
54N - 30mm - Counter-CW
56N - 20mm - Counter-CW

58N - 15mm - Counter-CW
60N - 10mm - Counter-CW
62N - 2mm - Counter-CW
64N - 4mm - CW
66N - 5mm - CW
68N - 0mm
70N - 0mm
72N - 4mm - CW
74N - 0mm
76N - 4mm - CW
78N - 5mm - Counter-CW
80N - 2mm - CW
82N - 4mm - Counter-CW
84N - 2mm - Counter-CW
86N - 3mm - CW
88N - 14mm - CW
90N - 17mm - CW
92N - 32mm - CW
94N - 35mm - CW
96N - 52mm - CW
98N - Not measured, no Cable band installed to climb on for access
100N - 83mm - CW
102N - 80mm - CW

.

Below is a list of the amount & direction of Cable rotation due to Cable swing-out for the South main-span:
Note: 1 degree of rotation is equal to 6.8mm of arc length
PP# - Rotated Arc L - Direction of rotation (clockwise or counter CW, looking East)
44S - 7mm - CW
46S - 28mm - CW
48S - Not measured, covered by suspender erection frame
50S - 52mm - CW
52S - 42mm - CW
54S - 38mm - CW
56S - 37mm - CW
58S - 20mm - CW
60S - 20mm - CW
62S - 10mm - CW
64S - 6mm - CW
66S - 2mm - CW
68S - 4mm - CW
70S - 4mm - Counter-CW
72S - 1mm - CW
74S - 2mm - CW
76S - 9mm - CW
78S - 0mm
80S - 6mm - CW
82S - 2mm - Counter-CW
84S - 5mm - CW
86S - 0mm
88S - 5mm - CW
90S - 6mm - Counter-CW
92S - 4mm - CW
94S - 18mm - Counter-CW
96S - 44mm - Counter-CW

98S - Not measured, no Cable band installed to climb on for access
100S - 76mm - Counter-CW
.